

Remarks

In the Office Action, the Claims 1-42 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully traverse this rejection.

The Office Action states that a) Independent claims 1, 7, and 21 (and all claims dependent thereon) all contain the limitations "macromonomer" and "macroinitiator" without further limitation as to the intended scope of these components. Applicants traverse the rejection that these terms are indefinite. A "monomer" is a molecule or compound usually containing carbon and of relatively low molecular weight and simple structure, that is capable of conversion into polymers, synthetic resins, or elastomers by combination with itself or other similar molecules or compounds. A "macromonomer" is also capable of conversion into polymers, synthetic resins, or elastomers by combination with itself or another similar molecules or compounds. However, a macromonomer is distinguished from a simple monomer in the specification. For instance, a macromonomer may combine with itself or another monomer to form a graft polymer. A graft copolymer is a copolymer comprised of a main backbone chain to which side chains are attached at various points. In the case of the present invention, the side chains are formed by the macromonomer dangling from the backbone of the copolymer. If a copolymerization of simple monomers is performed a graft polymer will not be formed, however, if macromonomers are polymerized the resulting polymer will be a graft copolymer. In the specification, a "macromonomer" is defined as "oligomers, polymers or other large molecules comprising at least one functional group suitable for (co)polymerization, preferably the functional group is a terminal functional group." As known in the art (see Hawley's Condensed Chemical Dictionary, Thirteenth Edition) an

"oligimer" is defined as a polymer molecule consisting of only a few monomer units, such as a dimer, trimer or a tetramer. A "polymer" is defined as a macromolecule formed by the chemical union of five or more combining units called monomers. The term "other large molecules" includes compounds on the size scale of polymers but not formed by the chemical union of five or more identical combining units and having at least one functional group suitable for (co)polymerization, preferably a terminal functional group for (co)polymerization. The other large molecule should be large enough to result in formation of a side chain on the graft copolymer. Applicants respectfully submit that one skilled in the art would understand the scope of the claims as amended herein;

b) Claim 23 has been amended to clarify its scope; and

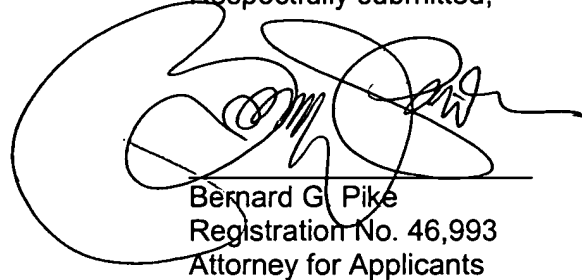
c) The meaning of "controlled polymerization process" is known in the art and a list of references defining "controlled polymerization process" are listed in the paragraph beginning on line 12 of page 7 of the specification as filed. A controlled polymerization process limits the amount of termination reactions and provides a mechanism to allow each polymer chain to grow at substantially identical rates. By controlled polymerization processes, polymers with narrow molecular weight distributions, less than 2, and a consistent composition along the polymer chain length. Conventional polymerization processes do not provide these features.

Applicants respectfully request reconsideration of the rejections based on the amendments and arguments provided in this response.

Conclusion

Applicants have made a diligent effort to fully respond to the all the election requirement presented in the Office Action. Therefore, Applicants respectfully request that a timely Notice of Allowance be issued in the subject application. If the Examiner has any concerns regarding Applicants' present response, he is invited to contact Applicants' undersigned representative at the telephone number listed below so that those concerns may be expeditiously addressed.

Respectfully submitted,



Bernard G. Pike
Registration No. 46,993
Attorney for Applicants

Kirkpatrick & Lockhart LLP
Henry W. Oliver Building
535 Smithfield Street
Pittsburgh, PA 15222-2312

Telephone: (412) 355-8620
Facsimile: (412) 355-6501

Customer No. 26,285